

Figure 1

Figure 2

1090 1100 1110 1120 1130 1140 1150 1160 1170 1180 1190 1200
 AGTGTGCCCTAAACCGGCTCGGTACGGGCTCGTCAACCGGGCACACTGCAAGGAAGGGGGCTNGGACCCGGCTCGTCAGGCTGGGGCATGGGGCTCGAC
 TCACAGGGGETTGGGGAGACCATGGGGAGGGAGTGGCTGACGTGTCCTCAGGGGAGCTGGGGTACGCCGAGCTGGGGTACGCCGAGCTGG
 S G R P K P A V W Y G L R H T A A T L H R K A G C D P L V I K L V L G H A A V D

 1210 1220 1230 1240 1250 1260 1270 1280 1290 1300 1310 1320
 ACCAGGACGACCTGACCGCACCTGACCGGAGGACTACTGCGGGCGGAACCTAACAAAGTTGCTGTAAGGGCCGCCAACACCTACTAACCGGGAGGAAGTGA
 TGGCCCTGCTGGACATGTGCGCCTGGAGCTGCTGTGACCGGATTGGAGATTGCGACGCATACCGGGCGAGAGCTGGGGAGCTGGGGATGAGCTGGCCCT
 T T D V Y T H L D E D Y C R A E L N K L S L K A P P P P T H Q G S D G G P

 1330 1340 1350 1360 1370 1380 1390 1400 1410 1420 1430 1440
 GACTAGGACGGCACCTACGGTGAAGGAGGACCATGACCGATTGGAGATTGGAGATTGGAGATTGGAGATTGGAGATTGGAGATTGGAGATTGGAGATTGG
 CTGAGTCCTGGTGGATGGCTGG
 D S G R N T Y G E G T M H G L G D L Q H H R A R A ← → A W E A R A L P T E L P P R N

 1450 1460 1470 1480 1490 1500 1510 1520 1530 1540 1550 1560
 TTGGCCGGGGTATAACGGGGCGCTGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAG
 AACCGGCCCATATGGCGGGCGACTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAG
 L A G G I P A P L L S V K D V A S L S V S T A K V Y Q L L A A G V L P T V W V

 1570 1580 1590 1600 1610 1620 1630 1640
 GGCAGTCGGCGCCCGTCAAGGGTGGAGGACTCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTGAG
 CCGCTCAGGGCGGGCGACTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCTCGAGCT
 G Q S R R V K R E D L A Y I A R A T A T G G K R G G K *

Figure 3

C. 10 20 30 40 50 60 70 80 90 100 110 120
 TGCCAGGGCTTACGGGTTCGCACACGGGGCTGGCGATGCTGAACGGAGGTGCCCAGCAGCGATGCCGCCTGGCTTGACATAGGGATTCCGAAACCTCGACCCGAGCTGGGAGG
 AACGGTCCCGAATGCCAGGCTGTGCCCCGCTACCGCTACCGCTACGGGTACAGGGTGCCTAAGGGTACGGGCTAACGGTCCGAAACGGGAAACCCCTAAGGTTGGAGCTGGGCTCGAACCCCTC
 130 140 150 160 170 180 190 200 210 220 230 240
 CTGGGGCTGACCCGTCAGGGTATCAGCCGAAACCCCTTACTTGCCTGGGATTCCGGGCTTGCTCCATCGGCGGGCTGTGCCAGCGGGTAGCAGGGAGCTCTAGGGGGGTT
 GAGCCGGAGCTGGCAATAGCTGGCAATAGCTGGCAAGCGTTGGGAATGAGCCGGAAACCCCTAAGGCCCGGCCCCGGACAGGTAGGAGCGTCCCCATGTCCTCAAGTCCCCCAA

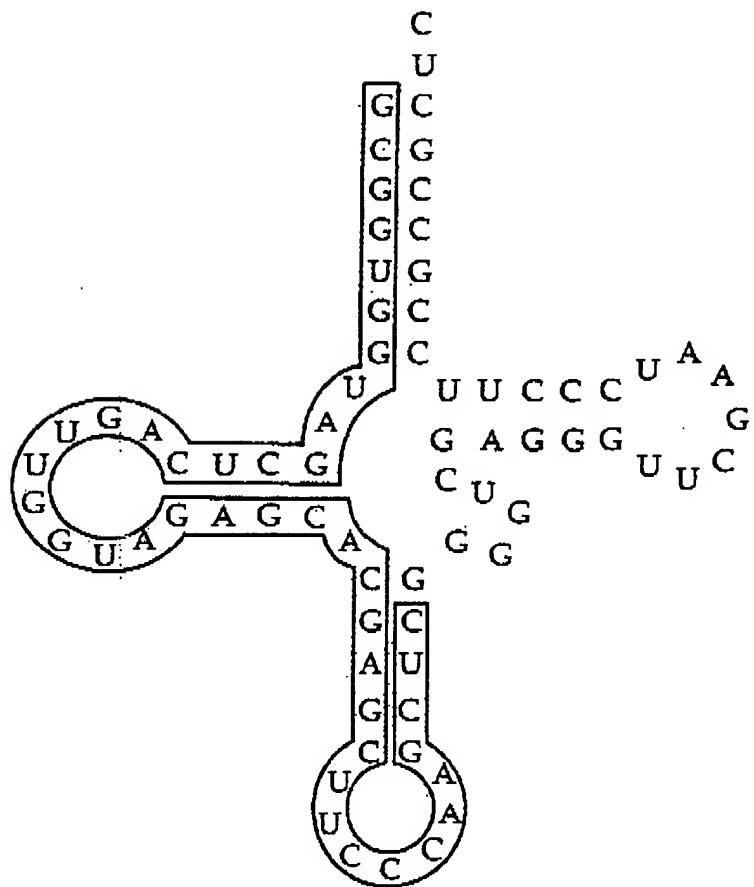


Figure 4

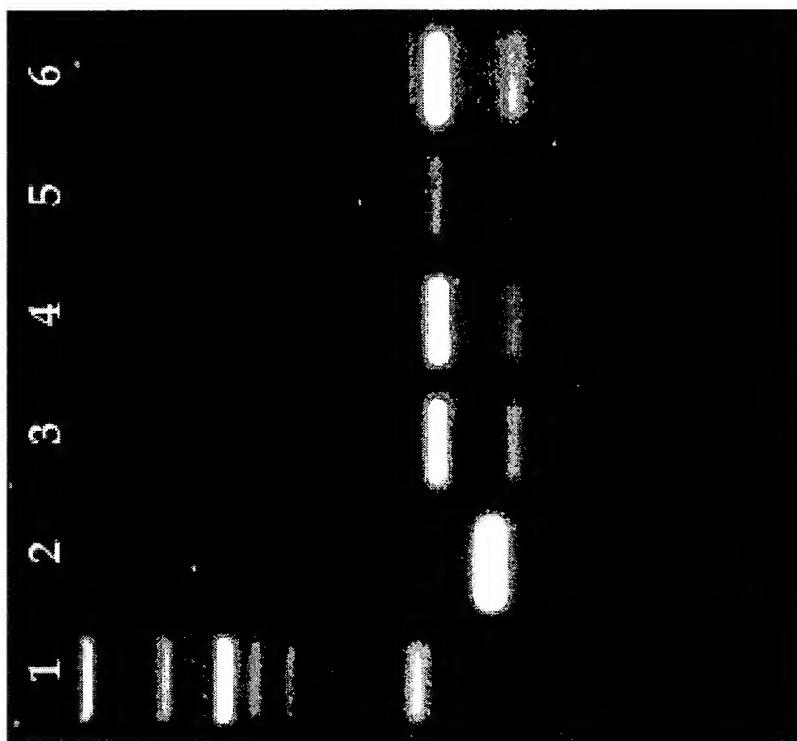


FIGURE 5

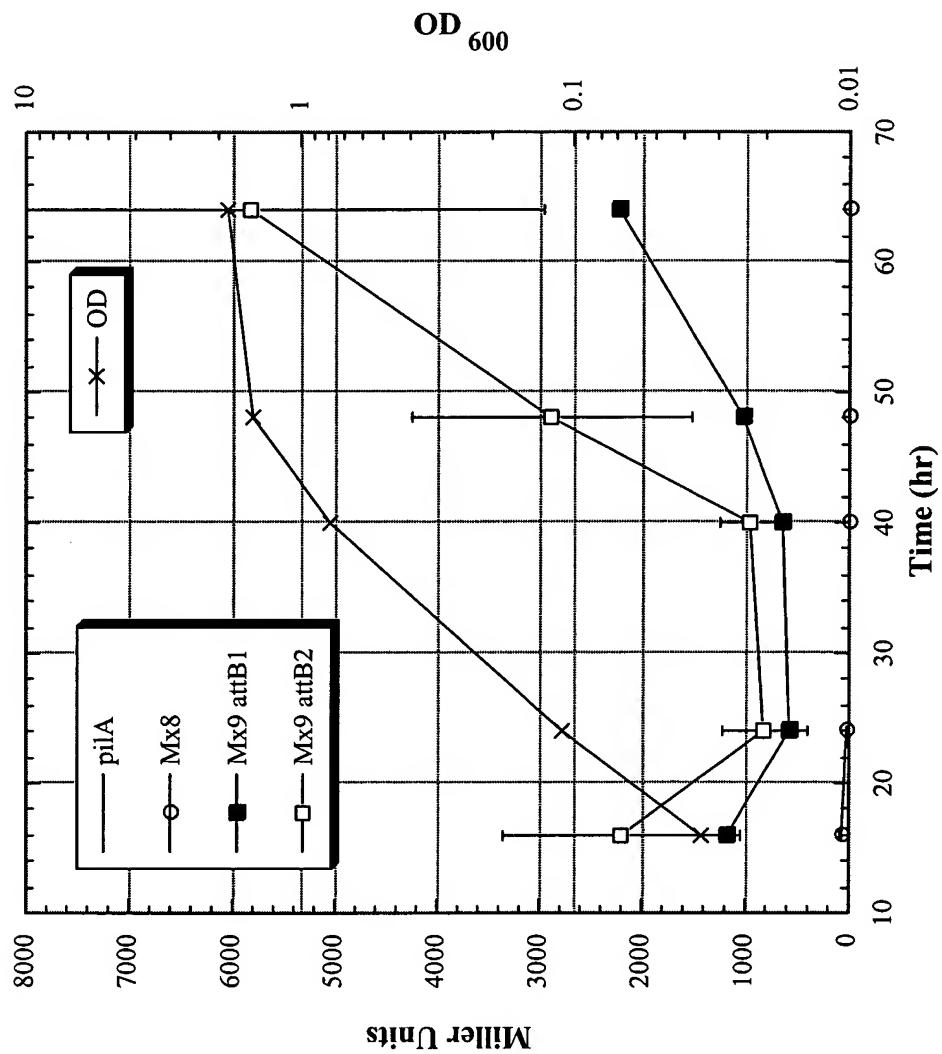


FIGURE 6A

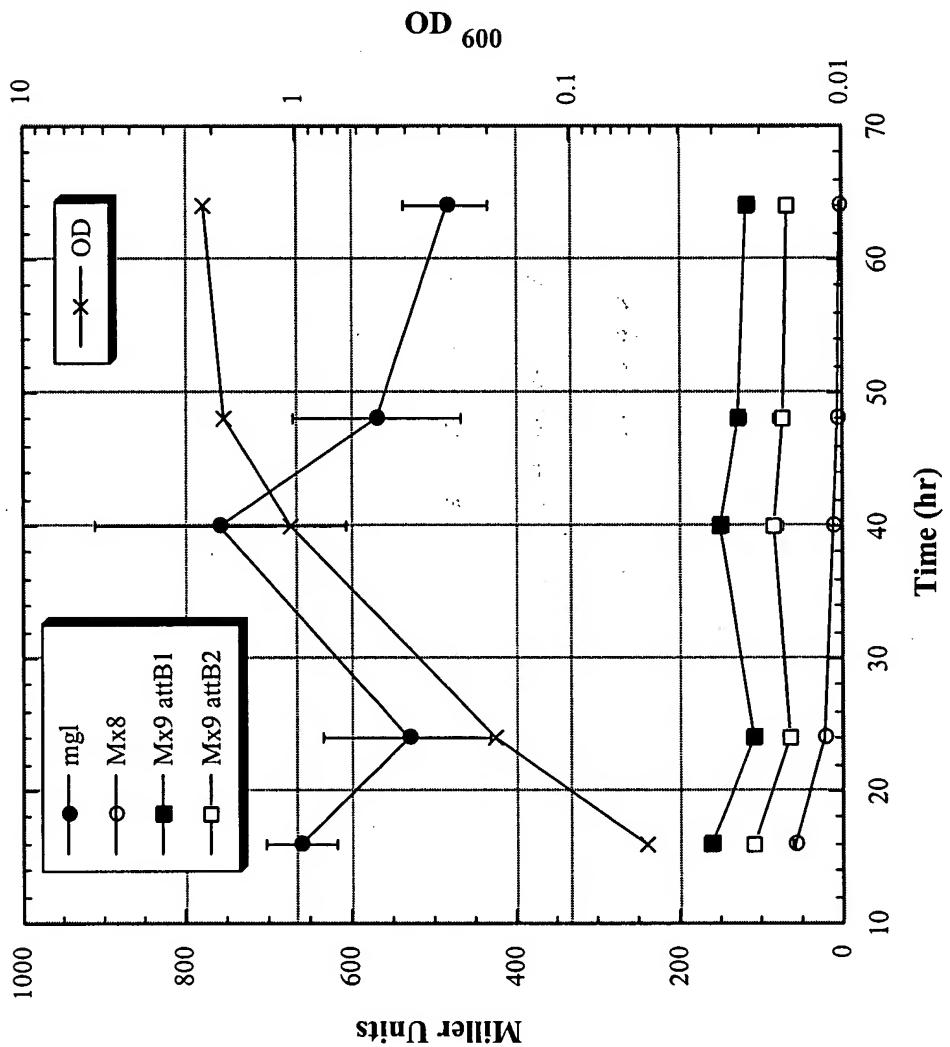


FIGURE 6B

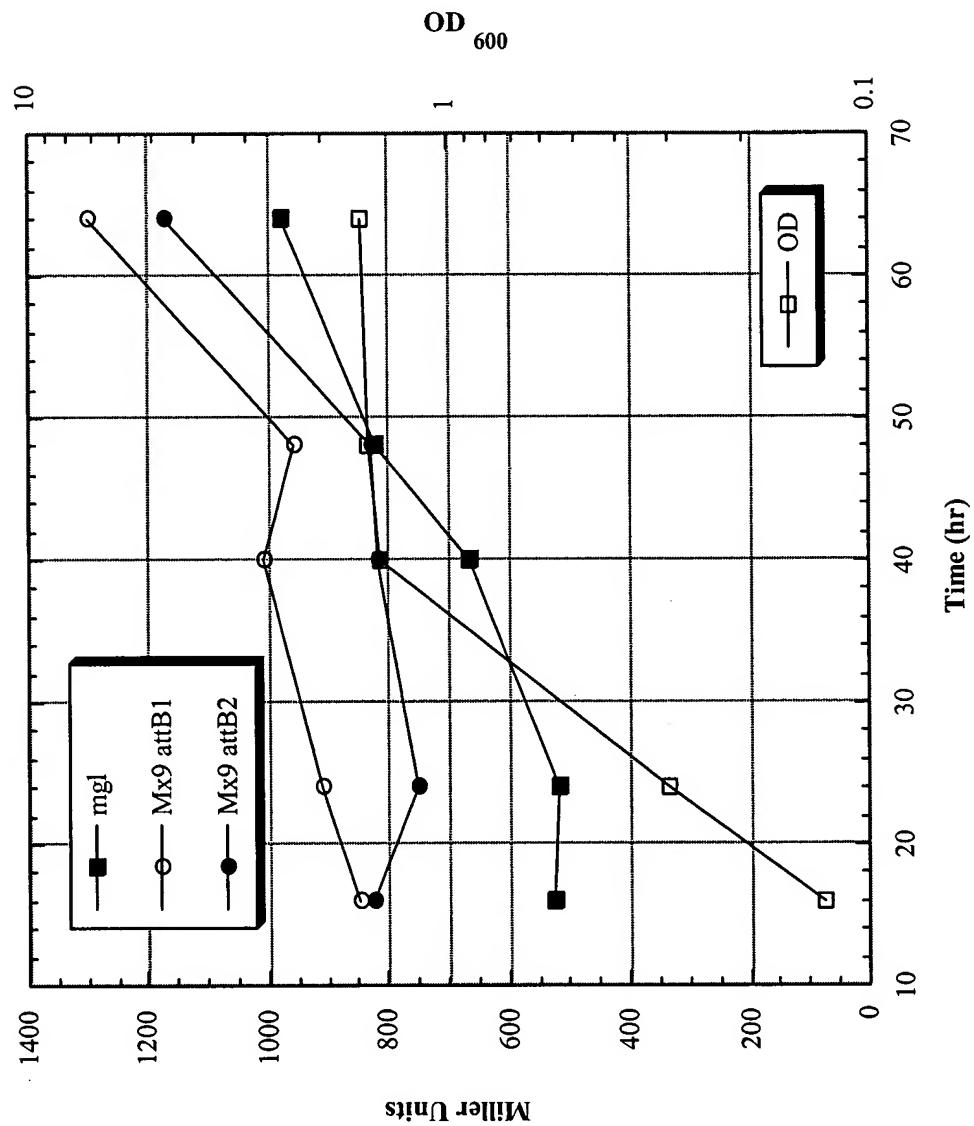


FIGURE 6C

Figure 7

10 20 30 40 50 60
ATG GAA AAA AAG GAA TTT CGT TTG ATA AAA TAC TGT TTT CTG AAG GGA AAA AAT ACA
TAC CTT TTT TTC CTT AAA GCA CAA AAC TAT TTT ATG ACA AAA GAC TTC CCT TTT TTA TGT
Met Glu Lys Lys Glu Asn Arg Val Leu Ile Lys Tyr Cys Asn Leu Lys Gly Lys Asn Thr

70 80 90 100 110 120
GTG GAA GCA AAA ACT TGG CTT GAT AAT GAG TTT CCG GAC TCT GCC CCA GGG AAA TCA ACA
CAC CTT CGT TTT TGA ACC GAA CTA TTA CTC AAA GGC CTG AGA CGG GGT CCC TTT AGT TGT
Val Glu Ala Lys Thr Trp Leu Asp Asn Glu Asn Pro Asp Ser Ala Pro Gly Lys Ser Thr

130 140 150 160 170 180
ATA ATT GAT TGG TAT GCA AAA TTC AAG CGT GGT GAA ATG AGC ACG GAG GAC GGT GAA CGC
TAT TAA CTA ACC ATA CGT TTT AAG TTC GCA CCA CTT TAC TCG TGC CTC CTG CCA CTT GCG
Ile Ile Asp Trp Tyr Ala Lys Phe Lys Arg Gly Glu Met Ser Thr Glu Asp Gly Glu Arg

190 200 210 220 230 240
AGT GGA CGC CCG AAA GAG GTG GTT ACC GAC GAA AAC ATC AAA AAA ATC CAC AAA ATG ATT
TCA CCT GCG GGC TTT CTC CAC CAA TGG CTG CTT TTG TAG TTT TTT TAG GTG TTT TAC TAA
Ser Gly Arg Pro Lys Glu Val Val Thr Asp Glu Asn Ile Lys Ile His Lys Met Ile

250 260 270 280 290 300
TTG AAT GAC CGT AAA ATG AAG TTG ATC GAG ATA GCA GAG GCC TTA AAG ATA TCA AAG GAA
AAC TTA CTG GCA TTT TAC TTC AAC TAG CTC TAT CGT CTC CGG AAT TTC TAT AGT TTC CTT
Leu Asn Asp Arg Lys Met Lys Leu Ile Glu Ile Ala Glu Ala Leu Lys Ile Ser Lys Glu

310 320 330 340 350 360
CGT GTT GGT CAT ATC ATT CAT CAA TAT TTG GAT ATG CGG AAG CTC TGT GCA AAA TGG GTG
GCA CAA CCA GTA TAG TAA GTA GTT ATA AAC CTA TAC GCC TTC GAG ACA CGT TTT ACC CAC
Arg Val Gly His Ile Ile His Gln Tyr Leu Asp Met Arg Lys Leu Cys Ala Lys Trp Val

370 380 390 400 410 420
CCG CGC GAG CTC ACA TTT GAC CAA AAA CAA CAA CGT GTT GAT GAT TCT GAG CGG TGT TTG
GGC GCG CTC GAG TGT AAA CTG GTT TTT GTT GTT GCA CAA CTA CTA AGA CTC GCC ACA AAC
Pro Arg Glu Leu Thr Asn Asp Gln Lys Gln Arg Val Asp Asp Ser Glu Arg Cys Leu

430 440 450 460 470 480
CAG CTG TTA ACT CGT AAT ACA CCC GAG TTT TTC CGT CGA TAT GTG ACA ATG GAT GAA ACA
GTC GAC AAT TGA GCA TTA TGT GGG CTC AAA AAG GCA GCT ATA CAC TGT TAC CTA CTT TGT
Gln Leu Leu Thr Arg Asn Thr Pro Glu Asn Phe Arg Arg Tyr Val Thr Met Asp Glu Thr

490 500 510 520 530 540
TGG CTC CAT CAC TAC ACT CCT GAG TCC AAT CGA CAG TCG GCT GAG TGG ACA GCG ACC GGT
ACC GAG GTA GTG ATG TGA GGA CTC AGG TTA GCT GTC AGC CGA CTC ACC TGT CGC TGG CCA
Trp Leu His His Tyr Thr Pro Glu Ser Asn Arg Gln Ser Ala Glu Trp Thr Ala Thr Gly

550 560 570 580 590 600
GAA CCG TCT CCG AAG CGT GGA AAG ACT CAA AAG TCC GCT GGC AAA GTA ATG GCC TCT GTT
CTT GGC AGA GGC TTC GCA CCT TTC TGA GTT TTC AGG CGA CCG TTT CAT TAC CGG AGA CAA
Glu Pro Ser Pro Lys Arg Gly Lys Thr Gln Lys Ser Ala Gly Lys Val Met Ala Ser Val

610	620	630	640	650	660
TTT TTC GAT GCG CAT GGA ATA ATT TTT ATC GAT TAT CTT GAG AAG GGA AAA ACC ATC AAC AAA AAG CTA CGC GTA CCT TAT TAA AAA TAG CTA ATA GAA CTC TTC CCT TTT TGG TAG TTG Asn <u>Phe</u> Asp Ala His Gly Ile Ile Asn Ile Asp Tyr Leu Glu Lys Gly Lys Thr Ile Asn					
670	680	690	700	710	720
AGT GAC TAT TAT ATG GCG TTA TTG GAG CGT TTG AAG GTC GAA ATC GCG GCA AAA CGG CCC TCA CTG ATA ATA TAC CGC AAT AAC CTC GCA AAC TTC CAG CTT TAG CGC CGT TTT GCC GGG Ser Asp Tyr Tyr Met Ala Leu Leu Glu Arg Leu Lys Val Glu Ile Ala Ala Lys Arg Pro					
730	740	750	760	770	780
CAT ATG AAG AAG AAA AAA GTG TTG TTC CAC CAA GAC AAC GCA CCG TGC CAC AAG TCA TTG GTA TAC TTC TTC TTT CAC AAC AAG GTG GTT CTG TTG CGT GGC ACG GTG TTC AGT AAC His Met Lys Lys Lys Val Leu Phe His Gln Asp Asn Ala Pro Cys His Lys Ser Leu					
790	800	810	820	830	840
AGA ACG ATG GCA AAA ATT CAT GAA TTG GGC TTC GAA TTG CTT CCC CAC CCA CCG TAT TCT TCT TGC TAC CGT TTT TAA GTA CTT AAC CCG AAG CTT AAC GAA GGG GTG GGT GGC ATA AGA Arg Thr Met Ala Lys Ile His Glu Leu Gly Phe Glu Leu Leu Pro His Pro Pro Tyr Ser					
850	860	870	880	890	900
CCA GAT CTG GCC CCC AGC GAC TTT TTC TTG TTC TCA GAC CTC AAA AGG ATG CTC GCA GGG GGT CTA GAC CGG GGG TCG CTG AAA AAG AAC AAG AGT CTG GAG TTT TCC TAC GAG CGT CCC Pro Asp Leu Ala Pro Ser Asp Asn Phe Leu Phe Ser Asp Leu Lys Arg Met Leu Ala Gly					
910	920	930	940	950	960
AAA AAA TTT GGC TGC AAT GAA GAG GTG ATC GCC GAA ACT GAG GCC TAT TTT GAG GCA AAA TTT TTT AAA CCG ACG TTA CTT CTC CAC TAG CGG CTT TGA CTC CGG ATA AAA CTC CGT TTT Lys Lys Asn Gly Cys Asn Glu Glu Val Ile Ala Glu Thr Glu Ala Tyr Asn Glu Ala Lys					
970	980	990	1000	1010	1020
CCG AAG GAG TAC TAC CAA AAT GGT ATC AAA AAA TTG GAA GGT CGT TAT AAT CGT TGT ATC GGC TTC CTC ATG ATG GTT TTA CCA TAG TTT TTT AAC CTT CCA GCA ATA TTA GCA ACA TAG Pro Lys Glu Tyr Tyr Gln Asn Gly Ile Lys Lys Leu Glu Gly Arg Tyr Asn Arg Cys Ile					
1030	1040				
GCT CTT GAA GGG AAC TAT GTT GAA TAA CGA GAA CTT CCC TTG ATA CAA CTT ATT Ala Leu Glu Gly Asn Tyr Val Glu ***					